

CLAIMS

1. (ORIGINAL) A medical device comprising:

an interventional component to be deployed in a patient;

a beneficial agent to be delivered from the interventional component, the beneficial agent loaded on at least a portion of the interventional component and having a first LogP value; and

an effective amount of a hydration inhibitor associated with the beneficial agent to control delivery of the beneficial agent from the interventional component, the hydration inhibitor having a second LogP value, the second LogP value being greater than the first LogP value.

2. (ORIGINAL) The device according to claim 1, wherein the beneficial agent is selected from a group consisting of antithrombotics, anticoagulants, antiplatelet agents, anti-lipid agents, thrombolytics, antiproliferatives, anti-inflammatories, agents that inhibit hyperplasia, smooth muscle cell inhibitors, antibiotics, growth factor inhibitors, cell adhesion inhibitors, cell adhesion promoters, antimitotics, antifibrins, antioxidants, antineoplastics, agents that promote endothelial cell recovery, antiallergic substances, viral vectors, nucleic acids, monoclonal antibodies, antisense compounds, oligonucleotides, cell permeation enhancers, pro-drugs and combinations thereof.

3. (ORIGINAL) The device according to claim 2, wherein the beneficial agent is selected from the group of indomethacin, phenyl salicylate, B-estradiol, vinblastine, ABT-627, testosterone, progesterone, paclitaxel, cyclosporin A, vincristine, carvedilol, vandesine, dipyridamole, methotrexate, folic acid, thrombospondin mimetics, estradiol, dexamethasone, metrizamide, iopamidol, iohexol, iopromide, iobitridol, iomeprol, iopentol, ioversol, ioxilan, iodixanol, iotrolan and pro-drugs, analogs, derivatives, or combinations thereof.

4. (CANCELED)

5. (ORIGINAL) The device according to claim 1, wherein the hydration inhibitor is selected from a group consisting of beneficial agents, polymeric materials, markers, additives, and combinations thereof.
6. (ORIGINAL) The device according to claim 1, wherein the hydration inhibitor is a second beneficial agent.
7. (ORIGINAL) The device according to claim 6, wherein the second beneficial agent is selected from a group consisting of antioxidants, antithrombotics, anticoagulants, antiplatelet agents, anti-lipid agents, thrombolytics, antiproliferatives, anti-inflammatories, agents that inhibit hyperplasia, smooth muscle cell inhibitors, antibiotics, growth factor inhibitors, cell adhesion inhibitors, cell adhesion promoters, antimitotics, antifibrins, antioxidants, antineoplastics, agents that promote endothelial cell recovery, antiallergic substances, viral vectors, nucleic acids, monoclonal antibodies, antisense compounds, oligonucleotides, cell permeation enhancers, radiopaque agents markers and combinations thereof
8. (ORIGINAL) The device according to claim 7, wherein the second beneficial agent is selected from a group consisting of paclitaxel, rapamycin, rapamycin derivatives, pimecrolimus, everolimus, fenofibrate, carvedilol, taxoteres, tacrolimus, butylated hydroxytoluene, butylated hydroxyanisole, vitamin E, danazol, probucol, tocopherols, tocotrienols, ABT-578, ABT-627 and analogs, derivatives, or combinations thereof.
9. (ORIGINAL) The device according to claim 6, wherein the hydration inhibitor is associated with the first beneficial agent as a layer of the second beneficial agent at least partially covering the first beneficial agent.
10. (ORIGINAL) The device according to claim 9, further comprising an outer layer of a third beneficial agent, the third beneficial agent having a third LogP value.
11. (ORIGINAL) The device according to claim 10, wherein the third LogP value is less than the second LogP value.

12. (ORIGINAL) The device according to claim 10, wherein the third beneficial agent is the same as the first beneficial agent.

13. (ORIGINAL) The device according to claim 6, wherein the hydration inhibitor is associated with the first beneficial agent as a mixture of the second beneficial agent with the first beneficial agent.

14. (ORIGINAL) The device according to claim 1, wherein the hydration inhibitor is associated with the beneficial agent as a mixture of the hydration inhibitor and the beneficial agent.

15.-19. (CANCELED)

20. (ORIGINAL) The device according to claim 1, further comprising a layer of polymeric material on at least a portion of a surface of the interventional component, the beneficial agent at least partially loaded onto the layer of polymeric material.

21. (ORIGINAL) The device according to claim 20, wherein the layer of polymeric material has a zwitterionic pendant group.

22. (ORIGINAL) The device according to claim 21, wherein the layer of polymeric material has a phosphoryl choline pendant group.

23. (ORIGINAL) The device according to claim 20, wherein the hydration inhibitor controls a delivery of the beneficial agent from the layer of polymeric material.

24. (ORIGINAL) The device according to claim 1, wherein the interventional component is selected from the group consisting of a stent, graft, stent-graft, valve, filter, coil, staple, suture, guidewire, catheter, and catheter balloon.

25. (ORIGINAL) The device according to claim 1, wherein the first LogP value is at least about 0.5 units less than the second LogP value.

26.-52. (CANCELED)